

Rec 10/17/77  
DEMCO INC.

BOX 65157 • EIGHTH and RAILROAD STREETS  
WEST DES MOINES, IOWA 50265-0157, PHONE 515-223-6655

MATERIAL SAFETY DATA SHEET

Section I

1. DEMCO, INC.  
P. O. Box 65157  
Eighth & Railroad  
West Des Moines, IA 50265
2. Emergency telephone no. - (515) 223-6655
3. Chemical name and synonyms - portland cement (CAS #65997-15-1)
4. Trade name and synonyms - Type I
5. Chemical family - Calcium salts
6. Formulae -  $3\text{CaO} \cdot \text{SiO}_2$  (CAS #12168-85-3)  
 $2\text{CaO} \cdot \text{SiO}_2$  (CAS #10034-77-2)  
 $3\text{CaO} \cdot \text{Al}_2\text{O}_3$  (CAS #12042-78-3)  
 $4\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$  (CAS #12068-35-8)  
 $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$  (CAS #13397-24-5)  
plus traces of  $\text{CaO}$ ,  $\text{MgO}$ ,  $\text{K}_2\text{SO}_4$ , and  $\text{Na}_2\text{SO}_4$

Section II - Hazardous Ingredients

7. N. A.

Section III - Physical Data

8. Boiling point - N. A.
9. Vapor pressure - N. A.
10. Vapor density - N. A.
11. Solubility in water - Slight (0.1 - 1%)
12. Specific gravity - 3.15
13. Percentage volatile by volume - N. A.
14. Evaporation rate - N. A.
15. Appearance and odor - Gray (or white) powder; odorless.

Section IV - Fire and Explosion Hazard Data

16. Flash point - N. A.
17. Flammable or explosive limits - N. A.
18. Extinguishing media - N. A.
19. Special firefighting procedures - N. A.
20. Unusual fire and explosion hazards - None.



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#### Section V - Health Hazard Data

21. Threshold Limit Value - 5 mg m<sup>-3</sup> (respirable dust)  
10 mg m<sup>-3</sup> (total dust)  
30 million particles per cubic foot
22. Effects of overexposure
- Acute - Wet cement, especially as an ingredient in plastic (unhardened) concrete, can dry the skin and cause alkali burns. Cement dust can irritate the eyes and upper respiratory system.
- Chronic - Cement dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. (Cement may contain traces of hexavalent chromium.)
23. Emergency and first-aid procedures- Irrigate eyes with water. Wash affected areas of the body with soap and water.

#### Section VI - Reactivity Data

24. Stability - Product is stable. Although no hazardous reaction will occur, portland cement should be kept dry until used.
25. Incompatibility - None
26. Hazardous decomposition products - None
27. Hazardous polymerization - Will not occur.

#### Section VII - Spill Procedures

28. Steps to be taken in case material is spilled - Use dry cleanup methods that do not disperse the dust into the air. Avoid breathing the dust.
29. Waste disposal method - Material can be disposed of as common waste.

#### Section VIII - Special Protection Information

30. Respiratory protection - In dusty environments, the use of a NIOSH approved respirator is recommended.
31. Ventilation - Local exhaust can be used, if necessary, to control airborne dust levels.
32. Eye protection - In dusty environments, the use of tight-fitting goggles is recommended.
33. Skin protection - Use barrier creams, gloves, boots and clothing to protect the skin from prolonged contact with wet cement, especially in plastic concrete. Immediately after working with cement, workers should shower with soap and water. Precautions must be observed because cement burns occur with little warning -- little heat is sensed.

#### Section IX - Special Precautions

34. Precautions to be taken in handling and storing - None.
35. Other precautions - None.